

ICT IMPLEMENTATION AND PROGRESSION OF SMALL ENTERPRISES: A STUDY OF GAMPAHA CITY, SRI LANKA

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ABSTRACT

In the current dynamic business world, ICT offers an option for developing and improving products/service so as to achieve a competitive edge in the market. Technology is no longer an afterthought in forming business strategy, but the actual cause and driver. Therefore the need for development of an efficient and effective computer-based information system is of utmost priority if survival and progression of the enterprises is to be realized. However, there seem to be inherent challenges in its implementation and utility in developing economies. This study examines the relationship between these inherent challenges in ICT implementation and the performance of small enterprises in Gampaha City in order to explore policy options for the progression of these enterprises. The study adopted the use of survey research design. The target population in this study consisted of 481 of the small enterprises in Gampaha City. A sample size of 144 was obtained for the survey. Questionnaires and interviews were the main tools used to collect data. Chi-square test (χ^2), a statistical method, was used to test the connotation between ICT implementation and small business performance. ICT forms an essential ingredient for the success of the organization.

Key words: ICT, Small Enterprises, Gampaha, Progression

1. INTRODUCTION

In today's information intensive environment, the creative combination of information and people can be a powerful force in achieving superior performance. High performance organizations that attain or exceed challenging goals, satisfy and expand established markets (or develop important new ones), and create superb value for owners, employees, and customers are likely to employ talented, motivated workers supported by well-developed information systems. The leverage of information and people is so powerful that managers in high performance organizations devote considerable energy to manage information, its delivery system, the people who deliver it, and those who use it. The combination of skilled people and advanced IT has revolutionised business and commerce and altered the concept of management states Frenzel and Frenzel [1]. Therefore the management concerns are to find application of technology to automate the flow of information in an organization's information system.

The term Information Technology (IT) and Information Communication Technology (ICT) are used interchangeably and, according to Beckinsale and Ram [2], ICT is defined as any technology used to support information gathering, processing, distribution and use. This

covers all forms of technologies such as computers, Internet, websites as well as fixed-line telephones, mobile phones and other wireless communications devices, networks, broadband and various specialized devices proves by Manuelli, Latu and Koh, [3]. ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. For example, personal computers, digital television, email, robots. Importantly, it is also concerned with the way these different uses can work with each other. ICT therefore, is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. It is an ingredient which when used accelerates business performance.

This study proposes that all business enterprises require new operational techniques to match the learning and innovational needs to maintain customer dynamism and quest for high quality products/ services that satisfy those needs. To manage this dilemma in a business enterprise, information and communication become an essential ingredient for the survival and progression of a business on a day today

endeavors. This requires systems to provide information and communicate them effectively in a business entity. ICT and information systems facilitate and improve the processing and dissemination of information to various users in the organization.

From the economic point of view, IT changes both relative costs of capital and the costs of information. Information system technology can be viewed as a factor of production that can be substituted for traditional capital labor. As the cost of IT decreases, it is substituted for labour, which historically has been a rising cost according to Laudon and Laudon [4].

2. METHODOLOGY

This study was conducted through a survey research design. The target population in this study consisted of 481 of small enterprises in Gampaha City Central Business District. The population was drawn from the sample list from the Municipal Council of Gampaha. Since the small and medium enterprises are viewed as potential drivers of the economy of a growing nation, the small enterprises became appropriate candidates and a focal point for the study of ICT impact on business progression. The sample in this study consisted of 144 small enterprises as respondents selected from the target population of 481. In the study a sample of small enterprises was selected, which represented 30.01% of the target inhabitants. The sample extent was resolute agreeing to Yamane [5] formula for sample size determination. A stratified sampling procedure was performed on the sample population.

2.1. Procedure for Analysis

The data congregated were coded, tabularized and analyzed using descriptive analysis for measures of central tendency and inferential analysis method to draw conclusions concerning relationships and differences found in the research results.

Chi-square test (χ^2), a statistical technique was used to compare and as a test of dependence. The chi-square test enables the researcher to explain whether or not two attributes are associated according to Kothari [6].

3. RESULTS

This study assessed and analyzed the endings in terms of four (4) groups of the implementation of ICT level namely: Basic communication group,

Basic Information Communication Technology group, Advanced Communication Group and Advanced Information Communication Technology group. Findings revealed that all the small enterprise firms (144(100%)) used basic communication as a means of communicating reports and transactional requirements.

Basic Communication.

The findings show that all small enterprises (respondents) use mobile phones (i.e. 144 representing 100%) as a way of communication. Fixed telephone lines and fax (facsimile) were used by 106 (74%) and 43 (30%) of the firms respectively.

Basic Information Technology

The findings results shows that of the 138 respondents under this group (Basic information technology), all had installed MS office Suite software, 82 (59%) had publishing software and 3 (2%) of them own spreadsheet software. 103 (75%) had installed an accounting software and only 67 (49%) operate other standard application software installed in their system.

Table 1: Elements of Information Technology Used

Elements of Information Technology	No. of Respondents n=138
MS Office suite software	138 (100%)
Word processing (WordPerfect, WordStar etc)	6 (4%)
Spreadsheet (Quattro pro, Lotus Suite etc)	3 (2%)
Accounting (QuickBooks, Systematics, Sage, Sun etc)	103 (75%)
Publishing software (PageMaker, Ventura, CorelDraw etc)	82 (59%)
Other standard software	67 (49%)

Advanced Communication

Results shows that all of the small enterprises under group 3 used E-mail and 74 (76%) used internet Browsing while 43 (44%) used file sharing to conduct business transaction and communication. A few small enterprises utilized superior communication elements such as video conferencing 15 (15%), intranet 20 (21%), creating websites 17 (18%), E-commerce 11 (11%) and voice over internet protocol 3 (3%).

Advanced Information Communication Technology

Form the respondents, 88 (61%) had embraced Advanced level of Information Communication Technology. An overwhelming majority of respondents in this group (85 (97%) and 79 (90%)) reported that they currently used Database management system and other internal developed software respectively. The minority of the group which comprises of 3 (3%), 21 (24%) and 3 (3%) used Enterprise Resource Planning (ERP), Inventory and Customer Relationship Management packages respectively. Results signifies most popularly used software under this group were database management systems and other internal industrialized software.

Relationship between ICT Implementation Level and Business Performance

Under group one, 37 (26%), 72 (50%), 29 (20%), 4 (3%) and 2 (1%) evaluated the business advancement as very high, high, moderate, very low and low correspondingly. In the group of basic IT respondents of 21 (15%), 63 (46%) and 45 (33%) rated the business performance as very high, high and moderate respectively. In the advanced communication group which consisted of 97 respondents, 27 (28%) and 59 (61%) of the enterprises rated the business performance as very high and high correspondingly.

And the rest of the enterprises which comprises of 10 (10%), 1 (1%) and 0(0%), showed moderate, low and very low for business progression correspondingly. Respondents in the advanced information communication technology group with respondents of 88, 19 (22%) and 17 (19%) indicated very high, high and moderate business performance correspondingly, while the rest which constitutes 5 (6%) and 3 (3%) conforms for low and very low of business progression correspondingly.

The chi square results revealed that there was statistically consequential connotation between ICT implementation level and business performance at level 0.05 ($\chi^2 = 27.22$; $df = 9$; $p = 0.05$;) and the χ^2 critical value at 0.05 is identically tantamount to 16.919. This corroborates that ICT implementation level is highly cognate with business performance.

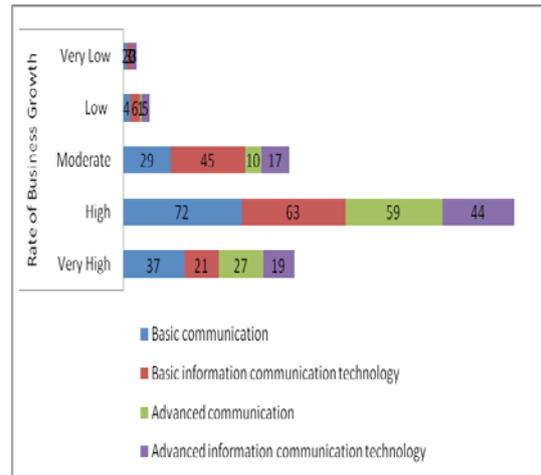


Figure 1: Rate of Business Growth

4. CONCLUSION

The study ascertained that all the enterprises used rudimental communication group of ICT and that above 50% of all the respondents had adopted technology of one form or the other as best suited their situations. The study therefore accomplishes that there subsists a recognizable level of ICT implementation and integration amongst SE's. It is therefore, indispensable to develop programs and solid strategies aimed at sustaining the ever growing quest in this technological arena by reducing cost, contributing to gain competitive advantages and managing business dynamics. Furthermore, more than 50% of the respondents believed that ICT implementation rate was slow. The desideratum for expedited implementation of ICT among SEs in the Municipal Council Area is exigent to spur economic progression.

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